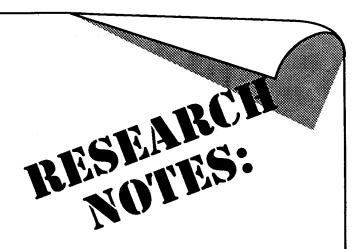


ARIZONA
TRANSPORTATION
RESEARCH
CENTER



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SURVEY OF FUTURIST TRENDS

Highlights

- □ there is really not much "new" with the economy
- ☐ the amount of developable land available for growth was still the most significant local factor in attracting employers and residents
- □ corporate tax structure is still the second most significant local factor in attracting employers

Background

Many economists have referred to the current transformations in the economy as the sanctioning of a "New Economy". VisionEcon, on the other hand, asserts that there is really not much "new" with the economy at all. Instead, the current changes are signaling shifts in the factors, or inputs, into the economic process—not changes in the economic process itself. To take that assertion a little closer to home, VisionEcon also contends that the classical location selection process for economic development remains intact as well. Some of the factors for growth are new, yet many of the older selection factors are almost as potent as they were during the previous decade. Hence,

the "old" strategy-- of balancing an area's attractiveness to business with its attractiveness to humanity-- still rules.

Approach

The growth in Arizona has astounded many observers outside the state. Unfortunately, whenever a transportation planner inside the state experiences this same astoundment—it has the potential to create havoc in transportation arena. To circumvent the possibility of this astoundment in the future, the Arizona Department of Transportation desired to perform a futuristic search. This search consists of four 1)Analyzing viable methods recognizing potential growth areas in the state, 2) Evaluating changes in land-use planning and their effects on transportation, 3) Identifying the most likely path for Intelligent Transportation Systems and 4) Projecting how future tourism will impact road usage. This report represents the first in this four-part series, addressing methods of recognizing economic development potential.

To correctly recognize these indicators, or factors, of growth, the Arizona Department of

Transportation (ADOT) was vigilant enough to recognize that looking back would not give the answer. Since our economy is currently undergoing a distinctive metamorphosis—ADOT wanted to look ahead. ADOT wanted to focus in on what "new" trends would shape development of the future and how these trends would affect transportation. Hence, a major compilation of the futuristic literature, a survey of "experts", and feedback from participants of the Arizona Partnership for the New Economy were used to single out the most probable tenets of growth.

Finally, these tenets were tested with a statistical dissection method. Interestingly, the results suggest that while the face of the economy and economic development is changing—some of the old factors are just as relevant as they were during the past decade.

Findings

According to many economists, the criteria used to pinpoint potential areas of future development have been altered. They believe the inception of a "New Economy" has brought with it a whole new set of economic rules. This report addresses this presumption. First, by probing the literature published by six different worldrenowned authors and two business magazines that carry out futuristic surveys, a consensus of ideas was compiled. Then, these ideas were presented to other national and local experts in survey form. By aggregating the views of the authors, the surveyed experts and the participants of Governor Hull's Arizona Partnership of the New Economy, a list of ten tenets for future economic development was assembled.

The overwhelming consensus of these sources was that the areas that will become the most successful harvesters of economic growth

in the so-called "New Economy" will be those that possess the following attributes:

- High-quality communications infrastructure
- Presence of an economic "gardening" planning process
- Innovative networking alliances within government that increase efficiencies and lower costs
- Entrepreneurial networking and venture capital organizations
- Capital-intensive, global, teacher-guided educational systems
- Cheaper, quicker, smarter transportation systems

A statistical dissection of structural employment growth indicated that the amount of developable land available for growth was still a significant factor in attracting employers and residents. In fact, while the strength of that link has lessened from explaining over 37 percent of a state's employment growth premium (above the national average) to only 27 percent—the results suggest that the nation is still not fully emerged in the so-called "New Economy". Interestingly, the significance of corporate tax structure has dropped as well, from more than 16 to about 13 percent. However, a closer examination of the data indicates that the drop in significance is most likely due to a convergence in corporate tax structures across the nation.

Nonetheless, the "New Economy" measure of venture capital invested within a community is quickly approaching the importance of corporate tax treatment, explaining 9 percent of the employment growth

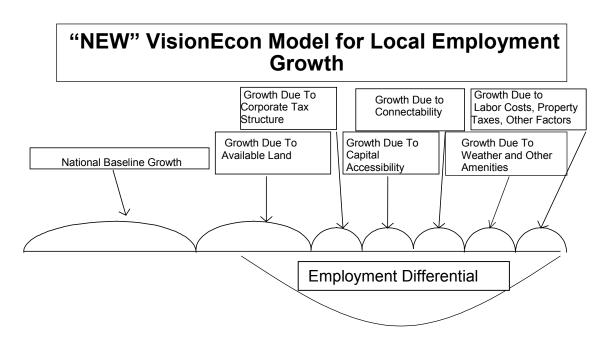
differential in the latest business cycle. And, the "new" measure of communications "connectability" (which explains 3.9 percent) is rivaling the importance of labor costs (3.6 percent) and weather amenities (4.1 percent). Thus, while the old factors of growth such as developable land, corporate tax structure and labor costs can not yet be forsaken; the "new" factors of venture capital and connectability are undoubtedly gaining in importance in economic development.

Conclusions

The statistical dissection of structural employment differentials suggests that land availability has become less important, just as the authors and experts claimed. Secondly, because all states are catching on to the importance of corporate tax structure, the

effective marginal corporate tax rates of all the states are converging. In fact, the average of the marginal corporate tax rates of all 50 states and the District of Columbia for a representative capital- and labor-intensive corporation have fallen between the previous and most current business cycle. In fact, the range between the high and low states has shrunk by almost 7%. This convergence helps to explain the reduction in correlation to employment—not the lack of importance of corporate tax rates.

At this point in time, land and taxes will remain playing an important role in a company's location decision—and in the resultant growth of employment. As the "New" Economy takes shape in this early evolution, the current VisionEcon Employment Model portrays the following system.



The Top Ten Tenets for Economic Development in the "New" Economy	
1.	Communications and networking connectability provided through free-market mechanisms will be of utmost importance to an area.
2.	Economic development will become more like gardening: analyzing an area's natural attributes, deciding what industry clusters would work best in that environment and transforming economic development policies to assure growth of these clusters.
3.	Government's role needs to be transformed to become more open, decentralized and goal-focused with the duties explicitly scribed by its citizens and government held accountable for those results.
4.	The most effective organizational style for accomplishing the "New" Economy tasks that are addressed as important by citizens will be to christen private/public partnerships with the power to sanction policy changes.
5.	The organizations (private, public or alliances) that will become the most adaptable (and hence, successful in the future) will be those that are open, decentralized networks polishing up new ideas and supporting entrepreneurial ideas with capital.
6.	Individuals will have the ability to become more involved in policymaking and through communications technology will be able to help create passive alliances to sway the decision-making of policymakers.
7.	Education will become more capital-intensive and global in curriculum with teachers performing more of a role of mentor/guide for all citizens not just student in grades K-12.
8.	Citizens will travel more, not less, in the future. In fact, as the costs of travel drop toward "the free", organizations would do best by tying their revenues to the <u>value of the services</u> provided by transportation.
9.	Global transportation corridors will become more automated, faster, cheaper and more ecological.
10.	The square footage and labor requirements for producing a dollar of gross domestic product will lessen in the future.

The full report: *Survey of Futurist Trends* by Debra Roubik (Arizona Department of Transportation, report number FHWA-AZ-01-507 (1), published February 2001) is available from the Arizona Transportation Research Center, 206 S. 17 Ave., Mail Drop 075R, Phoenix, AZ 85007; phone 602-712-3138.